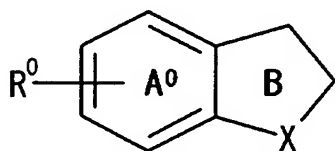


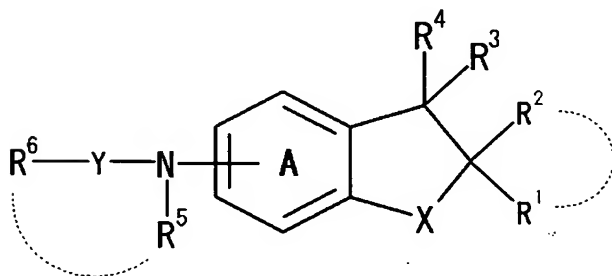
## CLAIMS

1. A cannabinoid receptor modulator containing a compound represented by Formula (I<sub>0</sub>)



5 wherein, X is an oxygen atom, an optionally substituted sulfur atom or an optionally substituted imino group, R<sup>0</sup> is an optionally substituted acylamino group, ring A<sup>0</sup> is a benzene ring which may further have a substituent in addition to R<sup>0</sup>, and ring B is an optionally substituted 5-  
 10 membered heterocycle, or a salt thereof or a prodrug thereof.

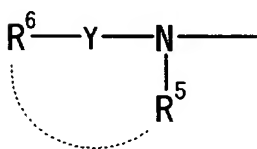
2. The modulator as described in Claim 1 wherein the compound represented by Formula (I<sub>0</sub>) or a salt thereof or a prodrug thereof is a compound represented by Formula (I)



15

wherein, X is an oxygen atom, an optionally substituted sulfur atom or an optionally substituted imino group, R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> are independently a hydrogen atom, an optionally substituted hydrocarbon group, an optionally

substituted heterocyclic group, an optionally substituted hydroxyl group, an optionally substituted mercapto group or an optionally substituted amino group, or  $R^2$  and  $R^3$  may be taken together to form a bond, or  $R^1$  and  $R^2$  may be taken  
 5 with the adjacent carbon atom to form an optionally substituted ring, Y is  $-CO-$ ,  $-SO-$ , or  $-SO_2-$ ,  $R^5$  is a hydrogen atom or an optionally substituted hydrocarbon group,  $R^6$  is a hydrogen atom, an optionally substituted hydrocarbon group, an optionally substituted hydroxyl group  
 10 or an optionally substituted amino group, or  $R^5$  and  $R^6$  may be taken with the adjacent carbon atom or sulfur atom and nitrogen atom to form an optionally substituted ring, and ring A is a benzene ring which may further have a substituent in addition to a group represented by the  
 15 following formula



wherein, each symbol has the same meaning as described above, or a salt thereof or a prodrug thereof.

3. The modulator as described in Claim 2 wherein  $R^1$  and  
 20  $R^2$  are a hydrogen atom.

4. The modulator as described in Claim 2 wherein  $R^1$  and  $R^2$  are respectively a hydrogen atom or a  $C_{1-4}$  alkyl group, provided that  $R^1$  and  $R^2$  are not a hydrogen atom at the same

time.

5. The modulator as described in Claim 1 wherein the compound represented by Formula (I<sub>0</sub>) or the salt thereof is a cannabinoid receptor agonist.

5 6. The modulator as described in Claim 5 wherein cannabinoid receptor is type 1 cannabinoid receptor.

7. The modulator as described in Claim 1 wherein the compound represented by Formula (I<sub>0</sub>) or the salt thereof is a cannabinoid receptor antagonist.

10 8. The modulator as described in Claim 7 wherein the cannabinoid receptor is type 1 cannabinoid receptor.

9. The modulator as described in Claim 1 wherein the compound represented by Formula (I<sub>0</sub>) or a salt thereof is type 2 cannabinoid receptor agonist.

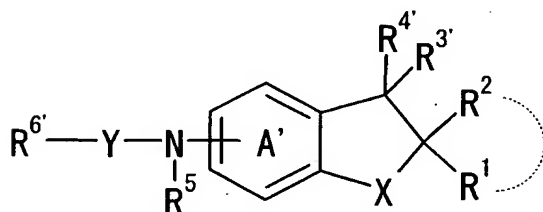
15 10. The modulator as described in Claim 1 which is an agent of preventing, treating or pain-relieving acute cerebrovascular disorders, spinal damage, head injury, multiple sclerosis, glaucoma, depression, vomit, arthritis or asthma.

20 11. The modulator as described in Claim 1 which is an agent of preventing or treating memory disorders, psychiatric diseases, obesity, mental diseases, anxiety, depression, drug-dependency, Alzheimer's dementia or Parkinson's disease, or an aid for smoking cessation.

25 12. The modulator as described in Claim 1 which is an

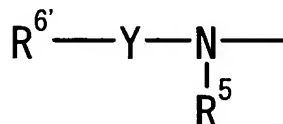
agent of preventing or treating multiple sclerosis,  
 neurodegenerative diseases, irritable bowel syndrome,  
 Crohn's Disease, reflux oesophagitis, COPD, psoriasis,  
 autoimmune diseases, graft rejection, allergic diseases,  
 5 psychogenic pain, hepatitis virus or hypertension, or an  
 agent of regulating immunity.

13. A compound represented by Formula (I')



wherein, X is an oxygen atom, an optionally substituted  
 10 sulfur atom or an optionally substituted imino group,  $R^1$   
 and  $R^2$  are independently a hydrogen atom, an optionally  
 substituted hydrocarbon group, an optionally substituted  
 heterocyclic group, an optionally substituted hydroxyl  
 group, an optionally substituted mercapto group or an  
 15 optionally substituted amino group, or  $R^1$  and  $R^2$  may be  
 taken with the adjacent carbon atom to form an optionally  
 substituted ring,  $R^3'$  is a hydrogen atom, an optionally  
 substituted hydrocarbon group, an optionally substituted  
 hydroxyl group, an optionally substituted mercapto group or  
 20 an optionally substituted amino group,  $R^4'$  is a hydrogen  
 atom, an optionally substituted alkyl group, an optionally  
 substituted aryl group, or an optionally substituted

heterocyclic group, Y is -CO-, -SO-, or -SO<sub>2</sub>-, R<sup>5</sup> is a hydrogen atom or an optionally substituted hydrocarbon group, R<sup>6'</sup> is an optionally substituted hydrocarbon group (provided that both of R<sup>1</sup> and R<sup>2</sup> are not a hydrogen atom,  
 5 R<sup>6'</sup> has no benzene ring), an optionally substituted hydroxyl group or an optionally substituted amino group, and ring A' is a benzene ring which may have further substituent in addition to a group represented by the following formula



10 wherein, each symbol has the same meaning as described above, or a salt thereof.

14. The compound as described in Claim 13 wherein R<sup>1</sup> and R<sup>2</sup> are independently a hydrogen atom, an optionally  
 15 substituted hydrocarbon group, an optionally substituted heterocyclic group, an optionally substituted hydroxyl group, an optionally substituted mercapto group or an optionally substituted amino group.

15. The compound as described in Claim 13 wherein R<sup>1</sup> and  
 20 R<sup>2</sup> are a hydrogen atom.

16. The compound as described in Claim 13 wherein R<sup>1</sup> and R<sup>2</sup> are respectively a hydrogen atom or a C<sub>1-4</sub> alkyl group, provided that R<sup>1</sup> and R<sup>2</sup> are not a hydrogen atom at the same

time.

17. The compound as described in Claim 13 wherein  $R^{3'}$  is a hydrogen atom.

18. The compound as described in Claim 13 wherein  $R^{4'}$  is  
5 an optionally substituted  $C_{6-14}$  aryl group or an optionally substituted 5 to 14-membered heterocyclic group.

19. The compound as described in Claim 13 wherein  $R^{4'}$  is an optionally substituted phenyl group.

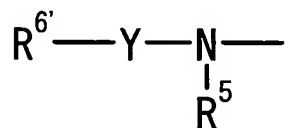
20. The compound as described in Claim 19 wherein  $R^{4'}$  is a  
10 phenyl group which may be substituted with an optionally substituted  $C_{1-4}$  alkyl group or an optionally substituted  $C_{1-4}$  alkoxy group.

21. The compound as described in Claim 13 wherein Y is -CO-.

15 22. The compound as described in Claim 13 wherein  $R^5$  is a hydrogen atom.

23. The compound as described in Claim 13 wherein X is an oxygen atom.

24. The compound as described in Claim 13 wherein 5-  
20 position of the fused-heterocycle in Formula (I') is substituted by a group represented by the following formula



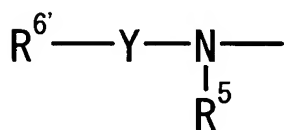
wherein, each symbol has the same meaning as described

above.

25. The compound as described in Claim 24 wherein 7-  
position of the fused-heterocycle in Formula (I') is  
further substituted by an optionally substituted C<sub>6-14</sub> aryl-  
5 C<sub>1-4</sub> alkyl group.

26. The compound as described in Claim 25 wherein the  
optionally substituted C<sub>6-14</sub> aryl-C<sub>1-4</sub> alkyl group is an  
optionally substituted benzyl group.

27. The compound as described in Claim 13 wherein ring A'  
10 is a benzene ring which may further have 1 to 3  
substituents selected from an optionally substituted C<sub>1-6</sub>  
alkyl group, an optionally substituted C<sub>6-12</sub> aryl group, an  
optionally substituted 5- or 6-membered heterocyclic group  
and an acyl group in addition to a group represented by the  
15 following formula



wherein, each symbol has the same meaning as described  
above.

28. The compound as described in Claim 27 wherein 7-  
20 position of the fused-heterocycle in Formula (I<sub>0</sub>) is  
substituted by an optionally substituted C<sub>1-4</sub> alkyl group,  
an optionally substituted C<sub>6-12</sub> aryl group, an optionally  
substituted 5- or 6-membered heterocyclic group, or an acyl

group.

29. The compound as described in Claim 27 wherein 7-position of the fused-heterocycle in Formula (I<sub>0</sub>) is substituted by an phenyl group, a furanyl group, a thienyl group, a pyridyl group, an acetyl group, a propionyl group, a butyryl group, or a benzoyl group, which may be substituted, respectively.

30. N-(3-(4-isopropylphenyl)-4,6,7-trimethyl-2,3-dihydro-1-benzofuran-5-yl)-3,3-dimethylbutanamide,

(+)-N-((3R)-3-(4-isopropylphenyl)-4,6,7-trimethyl-2,3-dihydro-1-benzofuran-5-yl)-3,3-dimethylbutanamide,

N-(7-acetyl-3-(4-isopropylphenyl)-4,6-dimethyl-2,3-dihydro-1-benzofuran-5-yl)-3,3-dimethylbutanamide,

N-(3-(4-isopropylphenyl)-7-methoxy-4,6-dimethyl-2,3-dihydro-1-benzofuran-5-yl)-3,3-dimethylbutanamide,

(+)-N-((3R)-7-acetyl-3-(4-isopropylphenyl)-4,6-dimethyl-2,3-dihydro-1-benzofuran-5-yl)-3,3-dimethylbutanamide,

(+)-N-(tert-butyl)-N'-((3R)-3-(4-isopropylphenyl)-4,6,7-trimethyl-2,3-dihydro-1-benzofuran-5-yl)urea,

N-(3-(4-isopropylphenyl)-4,6-dimethyl-7-phenyl-2,3-dihydro-1-benzofuran-5-yl)-3,3-dimethylbutanamide,

N-(7-(3-dimethylaminophenyl)-3-(4-isopropylphenyl)-4,6-dimethyl-2,3-dihydro-1-benzofuran-5-yl)-3,3-dimethylbutanamide,



N-(3-hydroxypropyl)-N'-(3-(4-isopropylphenyl)-4,6,7-trimethyl-2,3-dihydro-1-benzofuran-5-yl)urea,

N-((4-isopropyl-3-(2-methoxyethoxy)-4-isopropylphenyl)-4,6,7-trimethyl-2,3-dihydro-1-benzofuran-5-yl))-3,3-dimethylbutanamide,

N-(7-(4-isopropylbenzyl)-3,4,6-trimethyl-2,3-dihydro-1-benzofuran-5-yl)-3,3-dimethylbutanamide,

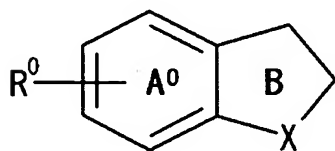
N-(3-(4-tert-butylphenyl)-2,2,4,6,7-pentamethyl-2,3-dihydro-1-benzofuran-5-yl)-3,3-dimethylbutanamide, or

N-(3-(4-isopropylphenyl)-4,6,7-trimethyl-3H-spiro(1-benzofuran-2,1'-cyclopentan)-5-yl)-3,3-dimethylbutanamide.

31. A prodrug of the compound as described in Claim 13.

32. A drug comprising the compound as described in Claim 13 or a prodrug thereof.

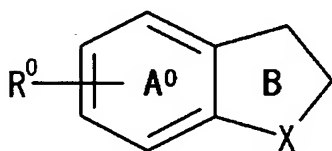
33. A method of preventing treating or pain-relieving acute cerebrovascular disorders, spinal damage, head injury, multiple sclerosis, glaucoma, depression, vomit, arthritis or asthma, which is characterized by administering an effective amount of a compound represented by Formula (I<sub>0</sub>)



wherein, X is an oxygen atom, an optionally substituted sulfur atom or an optionally substituted imino group, R<sup>0</sup> is an acylamino group, ring A<sup>0</sup> is a benzene ring which may

further have a substituent in addition to  $R^0$ , and ring B is an optionally substituted 5-membered heterocycle, or a salt thereof or a prodrug thereof to a subject in need of such treatment.

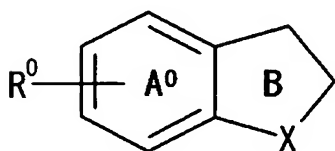
- 5 34. A method of preventing or treating memory disorders, psychiatric diseases, obesity, mental diseases, anxiety, depression, drug-dependency, Alzheimer's dementia or Parkinson's disease, or a method of aiding smoking  
 10 cessation, which is characterized by administering an effective amount of a compound represented by Formula (I<sub>0</sub>)



- wherein, X is an oxygen atom, an optionally substituted sulfur atom or an optionally substituted imino group,  $R^0$  is an acylamino group, ring A<sup>0</sup> is a benzene ring which may  
 15 further have a substituent in addition to  $R^0$ , and ring B is an optionally substituted 5-membered heterocycle, or a salt thereof or a prodrug thereof to a subject in need of such treatment.

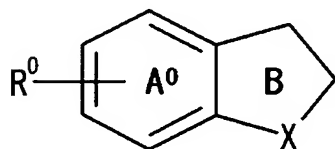
- 20 35. A method of preventing or treating multiple sclerosis, neurodegenerative diseases, irritable bowel syndrome, Crohn's Disease, reflux oesophagitis, COPD, psoriasis, autoimmune diseases, graft rejection, allergic diseases, psychogenic pain, hepatitis virus or hypertension, or a

method of regulating immunity, which is characterized by administering an effective amount of a compound represented by Formula (I<sub>0</sub>)



5 wherein, X is an oxygen atom, an optionally substituted sulfur atom or an optionally substituted imino group, R<sup>0</sup> is an acylamino group, ring A<sup>0</sup> is a benzene ring which may further have a substituent in addition to R<sup>0</sup>, and ring B is an optionally substituted 5-membered heterocycle, or a salt  
10 thereof or a prodrug thereof to a subject in need of such treatment.

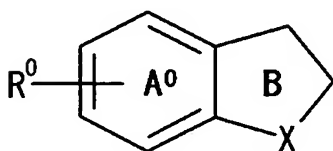
36. Use of a compound represented by Formula (I<sub>0</sub>)



wherein, X is an oxygen atom, an optionally substituted  
15 sulfur atom or an optionally substituted imino group, R<sup>0</sup> is an acylamino group, ring A<sup>0</sup> is a benzene ring which may further have a substituent in addition to R<sup>0</sup>, and ring B is an optionally substituted 5-membered heterocycle, or a salt thereof or a prodrug thereof, for manufacturing an agent of  
20 preventing or treating acute cerebrovascular disorders, spinal damage, head injury, multiple sclerosis, glaucoma,

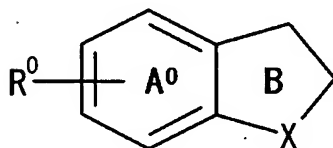
depression, vomit, arthritis or asthma; or for manufacturing an analgesic agent.

37. Use of a compound represented by Formula (I<sub>0</sub>)



5 wherein, X is an oxygen atom, an optionally substituted sulfur atom or an optionally substituted imino group, R<sup>0</sup> is an acylamino group, ring A<sup>0</sup> is a benzene ring which may further have a substituent in addition to R<sup>0</sup>, and ring B is an optionally substituted 5-membered heterocycle, or a salt  
10 thereof or a prodrug thereof, for manufacturing an agent of preventing or treating memory disorders, psychiatric diseases, obesity, mental diseases, anxiety, depression, drug-dependency, Alzheimer's dementia or Parkinson's disease, or an aid for smoking cessation.

15 38. Use of a compound represented by Formula (I<sub>0</sub>)



wherein, X is an oxygen atom, an optionally substituted sulfur atom or an optionally substituted imino group, R<sup>0</sup> is an acylamino group, ring A<sup>0</sup> is a benzene ring which may  
20 further have a substituent in addition to R<sup>0</sup>, and ring B is an optionally substituted 5-membered heterocycle, or a salt

thereof or a prodrug thereof, for manufacturing an agent of preventing or treating multiple sclerosis,

neurodegenerative diseases, irritable bowel syndrome,

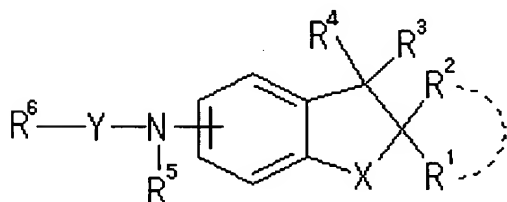
Crohn's Disease, reflux oesophagitis, COPD, psoriasis,

5 autoimmune diseases, graft rejection, allergic diseases,

psychogenic pain, hepatitis virus or hypertension, or an

agent of regulating immunity.

39. A method of preparing a compound represented by the following formula

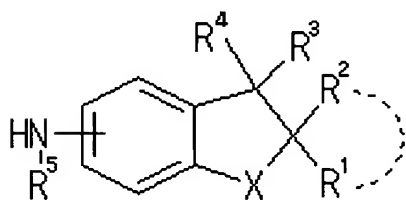


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wherein, each symbol has the same meaning as described

below, or a salt thereof, comprising reacting a compound

represented by the following formula



15

wherein, X is an oxygen atom, an optionally substituted

sulfur atom or an optionally substituted imino group,

R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> are independently a hydrogen atom, an

optionally substituted hydrocarbon group, an optionally

substituted heterocyclic group, an optionally substituted

hydroxyl group, an optionally substituted mercapto group or an optionally substituted amino group, or  $R^2$  and  $R^3$  may be taken together to form a bond, or  $R^1$  and  $R^2$  may be taken with the adjacent carbon atom to form an optionally substituted ring,

$R^5$  is a hydrogen atom or an optionally substituted hydrocarbon group,  $R^6$  is a hydrogen atom, an optionally substituted hydrocarbon group, an optionally substituted hydroxyl group or an optionally substituted amino group, or  $R^5$  and  $R^6$  may be taken with the adjacent carbon atom or sulfur atom and nitrogen atom to form an optionally substituted ring, and

ring A is a benzene ring which may have further substituent in addition to a group represented by Formula  $-NHR_5$

(wherein, each symbol has the same meaning as described above), or a salt thereof with,

$R^6YL$ ,  $(R^6Y)_2O$  or  $R^6N=Y$ , wherein, L is a leaving group, and Y is  $-CO-$ ,  $-SO-$ , or  $-SO_2-$ .